



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

MEMORANDUM TO: Project Engineers
Project Design Engineers

FROM: G. R. Perfetti, P. E.
State Bridge Design Engineer

DATE: January 10, 2005

SUBJECT: CHAMFERING ACUTE CORNERS ON END BENTS

At the request of the Construction Unit, for bridges on a moderate skew, $45^\circ \leq \text{skew} \leq 60^\circ$ or $120^\circ \leq \text{skew} \leq 135^\circ$, the acute corner of the end bent cap and wing wall shall be detailed with a $5\frac{1}{2}"$ (140mm) minimum chamfer. On a heavy skew, $\text{skew} < 45^\circ$ or $\text{skew} > 135^\circ$, eliminate the unnecessary acute triangular section of the cap by squaring off the end bent cap.

The attached Figure 7-10 shows examples of chamfered and squared off end bent caps and wings. When squaring off or chamfering end bent caps and wings, ensure all minimum clearances and edge distances are maintained.

This policy shall be effective with the April 2005 letting. The Design Manual will be revised at a later date.

GRP/DAS

Attachments

[Fig. 7-10 \(English\)](#)

[Fig. 7-10 \(Metric\)](#)

cc: R. V. Keith, P. E., with attachments
R. A. Raynor, P. E., with attachments
R. A. Hancock, P. E., with attachments
J. H. Emerson, P.E., with attachments
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